



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,897	11/21/2003	Jonathan Phillips	044463-0264	9078

22428 7590 12/21/2005

FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
----------

COLLINS, CYNTHIA E

ART UNIT	PAPER NUMBER
----------	--------------

1638

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/717,897

Applicant(s)

PHILLIPS ET AL.

Examiner

Cynthia Collins

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on November 21, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6, drawn to an isolated polynucleotide, classified in class 536, subclass 24.1, for example.
- II. Claims 7-9 and 14-15, drawn to a plant cell comprising at least one polynucleotide operably linked to a desired gene that encodes a polypeptide or protein that is an enzyme involved in the biosynthesis of cell walls, and to a plant comprising said cell, classified in class 435, subclass 419, for example.
- III. Claims 7-8, 10 and 14-15, drawn to a plant cell comprising at least one polynucleotide operably linked to a desired gene that encodes a polypeptide or protein that is an enzyme involved in lignin biosynthesis, and to a plant comprising said cell, classified in class 435, subclass 419, for example.
- IV. Claims 7, 11-13 and 14-15, drawn to a plant cell comprising at least one polynucleotide operably linked to a desired gene that produces an RNA transcript that has an antisense sequence of a gene that is endogenous to a plant cell wherein said RNA transcript induces RNA interference of a gene that is normally expressed in a plant cell, and to a plant comprising said cell, classified in class 435, subclass 419, for example.
- V. Claims 16-17, drawn to a method comprising cultivating the plant of claim 14, wherein the plant of claim 14 comprises a plant cell comprising at least one polynucleotide operably linked to a desired gene that encodes a polypeptide or

protein that is an enzyme involved in the biosynthesis of cell walls, classified in class 47, subclass 17, for example.

- VI. Claims 16-17, drawn to a method comprising cultivating the plant of claim 14, wherein the plant of claim 14 comprises a plant cell comprising at least one polynucleotide operably linked to a desired gene that encodes a polypeptide or protein that is an enzyme involved in lignin biosynthesis, classified in class 47, subclass 17, for example.
- VII. Claims 16-17, drawn to a method comprising cultivating the plant of claim 14, wherein the plant of claim 14 comprises a plant cell comprising at least one polynucleotide operably linked to a desired gene that produces an RNA transcript that has an antisense sequence of a gene that is endogenous to a plant cell wherein said RNA transcript induces RNA interference of a gene that is normally expressed in a plant cell, classified in class 47, subclass 17, for example.
- VIII. Claim 18, drawn to a transgenic plant comprising a polynucleotide sequence, classified in class 800, subclass 298, for example.
- IX. Claims 19-20, drawn to a method for obtaining wood, classified in class 530, subclass 202, for example.

For inventions I- IX above, restriction to a single sequence is also required under 35 USC 121. Therefore, upon election of any of inventions I-IX, one of SEQ ID NOS: 1 to 85 must also be elected.

Applicants are reminded that nucleotide sequences encoding different proteins, and the amino acid sequences they encode, are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide and amino acid sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq. This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of a single genus of invention, but constitutes an independent and patentably distinct invention.

The inventions are distinct, each from the other because of the following reasons:

Invention I and inventions II-IX are distinct inventions. The isolated nucleic acid molecule of invention I is classified separately from, and is not used in or produced by, the methods of inventions V-VII and IX. The isolated nucleic acid molecule of invention I is classified separately from, and differs in structure, function and use from, the plant cells and plants of inventions II-IV and VIII.

Invention II and inventions III-IV and VI-IX are distinct inventions. The plant of invention II is classified separately from, and is not used in or produced by, the methods of inventions VI-VII and IX. The plant of invention II comprises cells that differ in composition and function from the cells of the plants of inventions III-IV and VIII.

Inventions II and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the

Art Unit: 1638

product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the plant can be used in a materially different process of using that product, such as a breeding method.

Invention III and inventions IV-V and VII-IX are distinct inventions. The plant of invention III is classified separately from, and is not used in or produced by, the methods of inventions V-VI and IX. The plant of invention III comprises cells that differ in composition and function from the cells of the plants of inventions IV and VIII.

Inventions III and VI are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the plant can be used in a materially different process of using that product, such as a breeding method.

Invention IV and inventions V-VI and VIII-IX are distinct inventions. The plant of invention IV is classified separately from, and is not used in or produced by, the methods of inventions V-VI and IX. The plant of invention IV comprises cells that differ in composition and function from the cells of the plant of invention VIII.

Inventions IV and VII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP

Art Unit: 1638

§ 806.05(h)). In the instant case the plant can be used in a materially different process of using that product, such as a breeding method.

The method of invention V utilizes a plant whose cells differ in composition and function from the cells of the plants used in the methods of inventions VI and VII. The method of invention V is classified separately from, and does not utilize or result in the production of, the transgenic plant of invention VIII. The method of invention V is classified separately from, requires a method step different from, and produces an end result different from, the method of invention IX.

Invention V and inventions VI-IX are distinct inventions. The method of invention V utilizes a plant whose cells differ in composition and function from the cells of the plants used in the methods of inventions VI and VII. The method of invention V is classified separately from, and does not utilize or result in the production of, the transgenic plant of invention VIII. The method of invention V is classified separately from, requires a method step different from, and produces an end result different from, the method of invention IX.

Invention VI and inventions VII-IX are distinct inventions. The method of invention VI utilizes a plant whose cells differ in composition and function from the cells of the plant used in the method of invention VII. The method of invention VI is classified separately from, and does not utilize or result in the production of, the transgenic plant of invention VIII. The method of invention VI is classified separately from, requires a method step different from, and produces an end result different from, the method of invention IX.

Invention VII and inventions VIII-IX are distinct inventions. The method of invention VII is classified separately from, and does not utilize or result in the production of, the transgenic

Art Unit: 1638

plant of invention VIII. The method of invention VII is classified separately from, requires a method step different from, and produces an end result different from, the method of invention IX.

Invention VIII and invention IX are distinct inventions. The transgenic plant of invention VIII is classified separately from, is not used to practice, and is not produced by, the method of invention IX.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination purposes as indicated is proper.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined



Art Unit: 1638

claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined.

See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1638


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (571) 272-0794. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cynthia Collins  
Primary Examiner  
Art Unit 1638

CC

  
12/7/05